DOCUMENT RESUME

ED 423 041 PS 026 790

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TITLE Early Relationship Quality from Home to School: A Longitudinal Study.

PUB DATE 1998-07-00

NOTE 45p.; Paper presented at the Head Start National Research Conference (4th, Washington, DC, July 9-12, 1998).

PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS *At Risk Persons; Caregiver Child Relationship; Family Relationship; Low Income Groups; Mothers; *Parent Child Relationship; *Peer Relationship; Primary Education; Racial Differences; Sex Differences; *Sibling Relationship; Socioeconomic Status; *Teacher Student Relationship

IDENTIFIERS Mediating Factors; *Relationship Quality; Security Classifications; Security of Attachment

ABSTRACT

This study examined family-based relationships as predictors of social functioning in primary school and the possible protective role of family-based relationships for children at risk for school problems. Longitudinal data gathered on 158 children were used to examine the unique contributions of mother-child attachment classification at ages 1 and 2 years, the child's relationship with another adult caregiver, and closeness to a sibling. Also examined was the child's status in the family relative to siblings between ages 3 and 4 years, and relative to teacher reports of their own relationship to the child and the child's social skills and peer relations. Teacher report data were collected in kindergarten, first, or second grade. Findings indicated that quality of different family relationships provided relatively independent and complementary information about early social functioning in school, with more limited evidence for compensatory or protective processes at work. Boys were rated by teachers as having a less positive or more negative relationship with them and being less socially skilled than girls in all three grades. Minority race children were rated more negatively by teachers in first and second grade; as being less cooperative with peers by teachers in first grade, and as being less self-controlled by teachers in second grade. The only consistent evidence for the role of relationships as protective factors against social or demographic risk was for boys. Having a sibling who appeared to be a problem child to the mother and having a more positive relationship with an alternative caregiver at preschool predicted better social functioning in school for boys. (Contains 59 references.) (Author/KB)

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Early Relationship Quality From Home to School: A Longitudinal Study

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Running Head: Early Relationship Quality

UNDER REVIEW

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Early Relationship Quality From Home to School:

A Longitudinal Study

Funding for this investigation was provided by the National Science Foundation, the National Institute of Mental Health, the Buhl Foundation, and by the Office of Child Development, Department of Psychology in Education, Department of Psychology, and Western Psychiatric Institute and Clinic of the University of Pittsburgh.

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Early Relationship Quality From Home to School:

A Longitudinal Study

The aim of this investigation was to examine the role of social relationships in the home as predictors of social functioning in the first years of school. Longitudinal data gathered on 156 children from urban, low-income families were used to examine the unique contributions of mother-child attachment classification at ages 1 and 2 years, the child's relationship with another adult caregiver, the child's closeness to a sibling, and the child's status in the family relative to siblings between ages 3 and 4 years, to teacher reports of their own relationship to the child and the child's social skills in the classroom and peer relations. The role of family-based relationships as possible protective factors for children at social or demographic risk for problems in school was also tested. Results indicate that quality of different family relationships provides relatively independent and complementary information about early social functioning in school, with more limited evidence for compensatory or protective processes at work.

Early Relationship Quality From Home to School:

A Longitudinal Study

Attachment theory has made critical contributions to the way we think about early caregiving relationships and the potential role they play in shaping other social relations and later social functioning (Ainsworth, 1982; Bretherton, 1985; Bowlby, 1982; Sroufe, 1983). However, very little work has been done--either theoretically or empirically--toward understanding how the multiple relationships that characterize early development within the family individually and collectively contribute to a child's "working model" of relationships and to his or her subsequent social relations. Thus, for example, there is a growing body of correlational data to demonstrate that early (although more often contemporaneous) mother-child attachment can be linked both to teacher-child relationships and peer relations in the toddler, preschool and early school years (Cohn, 1990; Elicker, Egeland, & Sroufe, 1992; Jacobson & Wille, 1986; Sroufe & Fleeson, 1988; but see Goossens & van IJzendoorn, 1990; Howes, Matheson, & Hamilton, 1994 for negative findings). But much less is known about linkages between other familial relationships--with father, grandparents or other close kin, or siblings--and the quality of early social relations in school. Although there is some evidence for modest associations across child relationships in the family (e.g., attachment to mother and father, Fox, Kimmerly, & Schafer, 1991; attachments to multiple caregivers on the Israeli kibbutzim, Sagi et al., 1995; relationship with mother and with sibling, Dunn, 1988), there is enough variability across relationships for unique predictive information about social relations to be gained from children's relationships with other family members. There is also room, theoretically, for contributions from non-maternal relationships to a child's developing model of relationships.

The first question addressed in this study is whether non-maternal relationships at home contribute unique variance--over and above the mother-child relationship--in the prediction of children's relationships with teacher and social functioning more generally in the early school years. If this is the case, it is important to expand our conceptualization of

influences on early social relationships beyond a focus on a child's "primary" attachment figure to other caregiving or simply close relationships within the context of family life.

RISK AND RELATIONSHIPS

The significance of relationships at home may be greatest for children who are at social or demographic risk for problems at school. On the one hand, there is evidence that the presence of at least one caring, supportive adult can be critical for children's competence under conditions of social stress, including maritally conflicted homes (Hetherington, 1989; Rutter, 1979, 1981), and mentally ill parents (Baldwin et al., 1990; Radke-Yarrow & Sherman, 1990), whether support comes from mother or another caregiver (Garmezy & Masten, 1990; Kellam, Ensminger, & Turner, 1977). Presumably (but still an empirical question), when the quality of relationship between mother and child is poorer, the presence of another supportive relationship is most critical. For children from poor families and for boys, both of whom are at higher risk for school problems (Alexander & Entwisle, 1988; Dumaret, 1985; Jennings, Mendelsohn, May, & Brown, 1988; Rumberger, 1987), supportive relationships within the family also appear to play a more prominent role in predicting later social and emotional competence (Cohn, 1990; Egeland & Kreutzer, 1991; Lewis, Feiring, McGuffog, & Jaskir, 1984; Renken et al., 1989; Turner, 1991; Werner & Smith, 1982). It is likely that this is the case for children of minority race as well, but research on this question is scarce (Luster & McAdoo, 1994; Norman-Jackson, 1982).

To date, relatively few studies explore other adult-child relationships at home as they relate to children's social functioning in school, particularly among children at higher risk for school problems. A body of correlational literature on fathers and father-child relationships (see Pleck, 1997) indicates that paternal involvement and support, like maternal involvement and support, predict greater social competence and adjustment in school. Rare is the study, however, that statistically controls for variance associated with one parental relationship, before testing the other's predictive power. In testing for just such effects, Mosley and Thomson (1995) found unique associations between father-child relationship variables and

children's adjustment and social functioning at home and boys' adjustment at school. Effects were stronger for boys from poor families.

Work by Howes (Howes, Hamilton, & Matheson, 1994; Howes, Matheson, & Hamilton, 1994) and van IJzendoorn, Sagi, and Lambermon (1992) on children's relationships with day care providers is consistent in demonstrating prediction--at times over and above the mother-child relationship--to school readiness and social functioning in school. But the importance of these other adult relationships for children who are more likely to have social and/or academic problems in school has been given little empirical attention.

Turning to other family members, the presence of closely spaced younger siblings is associated with less competence and the presence of grandparents in the home with more competence among low-income, African-American children (Kellam et al., 1977; Luster & McAdoo, 1994; Norman-Jackson, 1982), apparently related to the psychological availability of supportive and attentive adults. But sibling relationship quality may also play an important role. Although sibling conflict appears to exacerbate negative effects of a divorce, for example, a close sibling relationship can play a protective role (Hetherington, 1989). Sibling rivalry is associated with quality of peer relations (Stocker & Dunn, 1990) and with loneliness and lower self-esteem among school-age children (Stocker, 1994), and may promote aggressive behavior in children at risk for acting out behavior problems (Patterson, 1986). From a different perspective, favored sibling status is gaining increasing attention as a significant correlate of children's adjustment (Dunn, Stocker, & Plomin, 1990; McHale & Pawletko, 1992). When children or parents report favored status, psychological adjustment tends to be higher for that sibling, but lower for the non-favored sibling(s).

RELATIONSHIPS AS PROTECTIVE FACTORS

Rutter (1990) proposed a definition of protective factors as buffers against negative outcomes specific to children who are at risk for those outcomes. Rather than lowering risk and/or enhancing well-being or competence among all children, he argued that true protective factors should function differently or exclusively for children at designated risk for a

particular problem in development. He also argued that testing for such effects through statistical interaction terms is a highly conservative approach that might well miss the phenomenon, due to the relatively small percentage of children for whom the risk and protective conditions are operative. Nevertheless, such a statistical approach may be appropriate for this kind of interactive effect when used with other methodological tests, such as comparison of associations between possible protective factors and outcomes for children at higher versus lower risk. Both approaches are taken in the present investigation.

The second question examined in this research is whether relations at home--with mother, other adult caregivers, and/or siblings--are more predictive of social functioning in school among children at higher demographic or social risk for problems in school. More specifically, are links between non-maternal relationships and social relations in school stronger for boys, for children of minority race, for children from families of lower socioeconomic status, and for children with insecure attachment relationships to their mother? If this is the case, there is support for the kind of protective model that Rutter (1990) postulated.

METHODS

SAMPLE

Two birth cohorts of children and their mothers from a longitudinal study of vulnerability and resiliency in childhood (Shaw et al., 1996; Vondra, Shaw, & Kevenides, 1995) provided the data for this investigation. Two hundred twenty-three urban, low-income mothers (Cohort 1, n=103; Cohort 2, n=130) with infants between the ages of 5 and 11 months were recruited from city offices of the Women, Infant, and Children (WIC) Supplemental Nutrition Program. Inclusion in the WIC Program requires low income (e.g., less than $22,385 for a family of four, less than $14,837 for a single mother and child in 1989, the first year of recruitment). Women who completed brief background questionnaires by phone or at the WIC office and took part in an initial lab visit with their infant at 12 months were included in the longitudinal research study.

At the time of the first laboratory visit at 12 months infant age, 45% of mothers reported being married or living with a partner, 13% reported being separated or divorced, and 42% reported being single. Almost three quarters of the women (74%) reported having a high school education or less, 88% reported having a family income of less than $1,500 per month, 39% were of minority race (almost exclusively African American), and 20% were teenagers at the time of their first child's birth. Maternal age at the time of recruitment ranged from 16 to 39, with a mean of 25. Of the 223 infants, 54% were male, 45% were firstborn, and 13% were born more than two weeks prematurely. The date of the assessments at 12 and 18 months were corrected for infant gestational age.

Of those seen in infancy, 204 mothers were recontacted by phone when their child was between the ages of 3 and 4. Based on their reports, one or more alternative caregivers were identified for 200 of the children, defined as an adult other than mother having a close relationship with the child. An alternative caregiver was contacted for 94% (n = 188) of the children and questionnaires were returned by 70% (n = 141). For 39% of the children, the first named alternative caregiver was a grandparent, for 21% an aunt, uncle, or cousin, for 18% the biological father, for 14% a girlfriend or current male partner of mother's, for 4% a child care provider, and for 2% mother indicated there was no alternative caregiver. Of the caregivers contacted, 40% were grandparents, 28% were aunts, uncles, and cousins, 10% were fathers, and 28% were maternal friends or sitters. Boys (43%) were more likely than girls (19%) to have a male alternative caregiver named, but both boys and girls most often had a female alternative caregiver named.

Teachers were contacted after children entered the school system. Teacher report data were collected on 156 children when they were in kindergarten (n = 75), first (n = 94), and/or second grade (n = 57). Seventy children were assessed in more than one grade. Of those children on whom teacher data were collected, 54% were male, 33% were firstborn, and 41% were non-white.

PROCEDURES

Mothers were asked to bring their child to the University for observations and assessments at the child ages of 12, 18, and 24 months, and to schedule a home visit when their child was either 15 (Cohort 1) or 18 (Cohort 2) months old. Follow-up contact with mothers was completed when children were between 3 and 4 years by telephone and by mail. Teacher data were gathered when children were in kindergarten, first, and/or second grade.

Lab assessments began with a free-play period for the child (when mothers completed questionnaires nearby with the examiner), followed by a series of interactive activities (examiner absent from the room), a rest/snack period in another room, and the Strange Situation. The order of the Strange Situation and Free Play period was counterbalanced at 12 months only (all Cohort 1 children had the Strange Situation last, all Cohort 2 children had the Strange Situation first; no differences in the distribution of attachment classifications were found across cohorts). Each lab visit took approximately two hours to complete and was videotaped from a fixed camera on the wall and/or through a one-way mirror to facilitate behavioral coding. Attachment data were coded on 223 children at 12 months and 201 children at 24 months.

Alternative Caregivers were identified through a phone interview with mothers when the children were between 3 and 4 years old. Mothers who were located for the phone interview ($n = 204$) were asked if there was any other adult, beside themselves, with whom the child had a close relationship. If mothers identified either their partner or a grandparent, they were asked if any other adult had a close relationship with their child. Mothers would also sometimes identify more than one person at the outset. Staff then asked permission to contact the caregivers identified and arranged to interview one of the caregivers. Selection of the caregiver varied, depending on the number identified and their availability.

At the same phone interview, mothers were asked questions about the child's siblings and his or her relationship with them, if siblings were present. One quarter of the children did not have any siblings by this age.

After children entered school, teachers were asked to complete a set of questionnaires describing the child's behavior, performance, and quality of relationships in the classroom. Teachers, alternative caregivers, and mothers were all paid for their participation.

MEASURES

Attachment

Attachment security was assessed using the Strange Situation paradigm (Ainsworth & Wittig, 1969). At 12 months, attachment classification (A=Avoidant, B=Secure, C=Resistant, D=Disorganized) was coded using the Ainsworth (Ainsworth, Blehar, Waters, & Wall, 1978) and Main (Main & Solomon, 1990) criteria. The first author was trained to 100% reliability with A. Sroufe (5 cases), 85% reliability with M. Ward and B. Vaughn (20 cases), and 75% with D. Cicchetti (16 cases). Six graduate student raters, blind to other ratings of the mother and child, were trained to reliability by the first author and tested for interrater agreement using two different sets of attachment assessments, one set from the lab of J. Belsky and a second set from the lab of A. Sroufe. Interrater agreement on major classifications ranged from 80% to 100% with a mean of 83% for the test assessments, and averaged 77% (20 cases) with the first author for a random set of study tapes. Study tapes were scored by the first author and/or by at least two of the trained raters. In cases of disagreement, a third rater was used.

At 24 months, attachment classification (A=Defended, B=Secure, C=Coercive, A/C or AD=Atypical) was coded using the Preschool Attachment Assessment (PAA, Crittenden, 1994). Four graduate student raters were trained by P. Crittenden to 85% reliability using her system. Two raters had coded a subset of the 12-month tapes. To help ensure independence of ratings, 24-month attachment was always scored either by two independent raters or by a single rater blind to infant attachment classifications. Average interrater agreement on major classifications was 62% (27 cases) for a random set of cases from the study. In cases of disagreement, a third rater was used. Thirty tapes (15%) were scored by P. Crittenden.

Socioeconomic Status

As an index of social and economic status, level of maternal education (collapsed into three levels: less than high school, high school or GED, some college) and reported family income (collapsed into three levels: less than $500/month, $500 to $1,000/month, more than $1,000/month), each scored 0-2, were summed.

Sibling Status

During the phone interview between ages 3 and 4, mothers were asked a series of questions about the child and his or her siblings that were designed for the study. First, mothers were asked to describe each of her children and then to identify which child best fit a series of descriptions. Examples include: Who gets along best in the family?/Who has the hardest time getting along? Who seems the best behaved?/Who needs to be punished the most? Who is the bossiest?/Who gets ordered around the most? Who is the easiest/hardest for most people to like? Based on the information given, raters indicated whether (a) the child appeared to be the problem child, or "black sheep," of the family (scored a 3), (b) a sibling appeared to be the "black sheep" (scored a 1), or (c) no one was clearly identifiable as the "black sheep" (scored a 2). Scoring was based on the assumption that being identified as the problem child was the most disadvantageous status, but having a sibling identified as the problem child was the most advantageous status. In 58% of the cases, no child was identifiable as the problem child, in 32% of the cases, a sibling was identified, and in 10% of the cases, the target child was identified.

Finally, mothers were asked whether the child was especially close to one of his or her siblings. The highest rating was given when a child was close to a younger sibling, since this allowed the child the opportunity to take a leadership role of relative competence in the sibling relationship (Dunn & Kendrick, 1982; Lamb, 1978).

Alternative Caregiver Relationship

Alternative caregivers were asked to complete a very brief series of ratings about the child over the phone and were then mailed a slightly revised (simplified wording) version of the Student-Teacher Relationship Scale (STRS, Pianta & Steinberg, 1992).

Ratings on the phone consisted of three-point descriptions of the child along a variety of dimensions (e.g., more behaved/less behaved/in between, less your favorite/more your favorite/in between, harder to handle/easier to handle/in between). Caregivers were asked to make the ratings relative to other children they knew of about the same age. Ratings were factor analyzed and yielded four general factors: positive (e.g., more/less loving), argumentative (e.g., faster/slower to argue), active (e.g., on the go more/less), and dependent (e.g., needing you more/less).

The Student-Teacher Relationship Scale was designed to capture qualitative differences in the relationships of teachers and children in the early school years. Although developed for kindergarten and first grade teachers, items were created on the basis of attachment theory/research and the measure was designed to capture dimensions of close relationships theoretically significant for alternative caregivers ("warm/close, open, conflicted/angry, dependent, troubled/closed"). The language was simplified for use with caregivers. Validity was established using 436 kindergartners from all socioeconomic backgrounds (Pianta & Steinberg, 1992; Pianta, Steinberg, & Rollins, 1995). Associations were found between STRS scores and parent reports of problem behavior at home and with teacher reports of problem behavior in first grade. Children retained in kindergarten scored less positively and more problematically on the STRS than a matched subset of children promoted to first grade, even after controlling for classroom behavior. It was decided to use the STRS both for teachers and alternative caregivers for two reasons. First, the theoretical basis of the scale--a combined focus on attachment security and teaching/helping interactions--has relevance for any caregiver with some degree of intimacy with a child. Second, no other published scale focusing specifically on relationship quality between teacher or secondary caregiver and child is yet available.

Responses to the STRS were also factor analyzed and yielded five general factors: positive (9 items; e.g., "This child likes telling me about him/herself"), negative (6 items; e.g., "This child whines or cries when s/he wants something from me"), dependent (3 items; e.g., "This child asks for my help when s/he doesn't need it"), resistant (3 items; e.g., "This

child stays angry or resists me after being punished"), and avoidant (2 items; e.g., "This child doesn't like hugging or other touch from me").

To improve reliability of the data, modestly correlated factors from the two alternative caregiver measures were standardized and summed. Correlations ranged from .22 to .35 (all significant at the $p < .01$ level). This resulted in three overall scores for the alternative caregiver-child relationship: positive (the two positive factors), negative (the STRS negative factor and both the argumentative and active factors from the phone ratings), and dependent (the two dependent factors). Items not loading on these factors were not used.

Teacher Ratings

Information on the quality of the child's social functioning was gathered using two scales. Qualitative differences in the teacher-child relationship were measured using the Student-Teacher Relationship Scale (STRS, Pianta & Steinberg, 1992), described above. Teacher responses were factor analyzed and yielded three broad factors: positive (11 items; e.g., "If upset, this child will seek comfort from me"), negative (9 items; e.g., "This child easily becomes angry at me"), and dependent (3 items; e.g., "This child is overly dependent on me"). These factors generally replicate the three STRS factors reported by Pianta, Steinberg, & Rollins (1995), derived from teacher ratings of 436 kindergarten children. Although there was overlap in content between the comparably named alternative caregiver and teacher factors, each included items that were unique to that information source. On average, about 64% of the items loading on the comparably named factors were the same for alternative caregiver and teacher. Not surprisingly, there appeared to be more relationship dimensions for alternative caregivers (five) than for teachers (three).

Ratings of the child's social functioning in the classroom were made using the Social Skills scale of the elementary edition of the Social Skills Questionnaire (Gresham & Elliott, 1990). Three subscales describe the child's (1) level of cooperation (e.g., "Uses free time in an acceptable way"), (2) self-control (e.g., "Cooperates with peers without prompting"), and (3) assertiveness (e.g., "Invites others to join in activities"). A global rating of aggression,

rejection, and being liked were added at the end, each using a five-point scale. The global ratings were available only for children in second grade.

RESULTS

RELATIONSHIP QUALITY AT HOME

To examine the interrelations among relationship quality at home, ANOVAs were conducted using the four attachment classifications at 12 and 24 months as independent variables and sibling status and alternative caregiver relationship quality as dependent variables. In addition, simple correlations were computed between the sibling variables and alternative caregiver relationship scores.

Mother-Child Attachment

Univariate ANOVAs indicated no differences on sibling closeness or "black sheep" status for children with different attachment classifications. Of the three alternative caregiver relationship scores, one was predicted by 12-month attachment classification and one by 24-month attachment classification. Post-hoc comparisons using the Bonferroni test clarified which groups looked different. Specifically, children with A or D attachments at 12 months scored higher on the negative alternative caregiver factor between ages 3 and 4 ($F[3,136] = 2.68$, $p < .05$) and children with atypical attachments at 24 months scored higher on the dependency factor ($F[3,124] = 3.64$, $p < .05$).

Sibling Status

Simple, bivariate correlations revealed very little concurrent association between the child's sibling status between ages 3 and 4 and the quality of the alternative caregiver-child relationship at the same age. There were no associations between "black sheep" or problem child status and the three caregiver relationship scores. Only one association proved significant for sibling closeness. Children whose mothers reported that they were close to a sibling (particularly a younger sibling) had alternative caregivers who reported a slightly more positive relationship with them ($r[98] = .21$, $p < .05$). "Black sheep" status and closeness to (especially younger) siblings were unrelated.

In summary, there is more divergence than convergence among the three sets of relations at home. Certain patterns of insecure attachment are associated with more negativity in the alternative caregiver-child relationship. Conversely, closeness with a sibling is associated with more warmth and closeness in the alternative caregiver-child relationship. Nevertheless, considerable opportunity remains for independent prediction to social relations in the classroom. Simple, bivariate associations were first tested, followed by multivariate analyses to examine each of the research questions posed at the outset of the study.

RELATIONSHIPS FROM HOME TO SCHOOL

Risk Factors

To determine whether, in fact, demographic risk factors--child gender, child race, and maternal socioeconomic status (SES)--were associated with social functioning in school, a series of t-tests and correlations were conducted. Results appear in Table 2 and indicate a pattern of differences supporting the use of these variables as risk indices. Specifically, boys were rated by teachers as having a significantly less positive and/or more negative relationship with them and being less socially skilled in all three grades. Children of minority race (primarily African American) were rated no differently in kindergarten, but their relationships with teachers were described as more negative in first and second grade, they were viewed as less cooperative with peers in first grade, and as less self-controlled in second grade. Correlations with SES did not emerge until second grade, when relatively higher SES (within the sample) was associated with a more positive and less negative teacher-child relationship, and with more self-control in the classroom. Lack of findings in the earlier grades appeared to be related to associations with maternal level of education, which was correlated with social functioning, but in the opposite direction from prediction in kindergarten and first grade. More maternal education was correlated with somewhat poorer teacher-child relationships until second grade, when the associations were reversed.

Bivariate Associations

A series of one-way ANOVAs using attachment classification, and correlations using sibling status or alternative caregiver-child relationship scores, were used to examine

bivariate associations between relationship quality at home and social functioning in school.

Mother-Child attachment. The modest findings for attachment classification were concentrated in the first two grades, and were more prevalent for the teacher-child relationship than for social functioning more generally. Attachment classification at 12 months predicted the teacher dependency factor ($F[3,89] = 5.72$, $p < .01$) and child cooperativeness ($F[3,88] = 2.99$, $p < .05$) in first grade. Post-hoc comparisons indicated that the children with A (avoidant) attachments scored significantly poorer (more dependent, less cooperative) than children with B (secure) attachments. A similar pattern emerged in kindergarten with the teacher negative factor, but did not reach statistical significance ($F[3,69] = 2.59$, $p < .10$). None of the ANOVAs on second-grade data were significant.

Attachment at 24 months was associated only with the teacher dependency factor in kindergarten ($F[3,124] = 3.64$, $p < .05$). Children with C (coercive) attachments scored highest on dependency, but none of the individual comparisons proved significant.

To aggregate the data for multivariate analyses, attachment was transformed into a three-level risk index. Based on the associations to school relations, 12-month attachment was scored as A (Avoidant) or not A and 24-month attachment was scored as C (Coercive) or not C. The two scores (1 or 0) were then summed to create an attachment risk index ranging from 0 (not A at 12 months and not C at 24 months) to 2 (A at 12 months and C at 24 months). This aggregated attachment risk score was associated with a higher likelihood of being identifiable as a problem child, or "black sheep," by mother at ages 3 to 4 years ($r[172] = .20$, $p < .01$), greater teacher-child relationship dependency in kindergarten ($r[68] = .40$, $p < .001$) and in first grade ($r[87] = .28$, $p < .01$), and less cooperation in the first ($r[86] = -.21$, $p < .10$) and second grade ($r[50] = -.40$, $p < .01$) classrooms.

Sibling status. Like attachment classification, sibling status between ages 3 and 4 tended to predict school relationships primarily in kindergarten and first grade. Closeness to a sibling and "black sheep" status were both related to the teacher dependency and negative relationship factors in the predicted directions (closeness inversely related, problem child positively related). They were also related to cooperation and self-control in the classroom,

again in the predicted directions. Correlations appear in Table 1. Surprisingly, by second grade, associations with sibling closeness were in the opposite direction, although only one, the correlation with aggression ($r[35] = .39$, $p < .05$) reached statistical significance.

This finding was clarified when correlations were computed on the number (and hence availability) of younger siblings in the family. For non-white children only, having more younger siblings was powerfully predictive of a less positive teacher-child relationship in first grade and poorer classroom social skills in second grade. These results appear in Table 4 with other correlations grouped by child race.

Alternative caregiver-child relationship. Prediction from the alternative caregiver relationship factors to school relationships was achieved exclusively by the positive factor. A more positive relationship between ages 3 and 4 predicted less negativity in the teacher-child relationship and more self-control in kindergarten. There were no associations with first grade social functioning, but by second grade, a more positive alternative caregiver relationship predicted a higher global rating for being liked by peers and lower rating for peer rejection. Results appear in Table 1.

In summary, modest patterns of association with social functioning in school were found for all three indices of relationship quality in the home: mother-child attachment, sibling closeness/status, and quality of the alternative caregiver-child relationship. Two questions remain to be addressed: (1) Do the three indices of relationship quality account for unique variance in school relations? and (3) Do non-maternal relationships serve as a protective factor among children at higher risk for problems in school? To answer these questions, data were examined using multivariate statistics.

Multivariate Associations

Restricted sample sizes in each grade (further limited by deleting cases without siblings) made it more feasible to test for independent and interactive effects by regression, since analysis of variance would have required forcing several predictors into arbitrary two-

level variables in order to test interaction effects. To test the unique predictive power of relationships with mother, alternative caregiver, and sibling(s), a series of regressions were tested, with the continuous (12 + 24-month) attachment score, followed by the positive factor of the alternative caregiver-child relationship, problem-child status in the family, and finally, sibling closeness. To control for inflation of alpha, results are reported only for those school variables with a significant overall regression equation. Univariate F-tests for significant or near-significant contributions of individual variables to (significant) regressions are reported below. It should be noted that in many cases, one relationship was a significant predictor, but the overall regression equation was only marginally significant. The single predictive relationship variable was as likely to be the alternative caregiver-child relationship or sibling relationship/status as it was to be mother-child attachment.

Unique prediction. In kindergarten, only the regression predicting teacher-child relationship dependency was significant. A more dependent relationship was predicted both by attachment insecurity (A at 12 months and/or C at 24 months; $F[1,31] = 15.73$, $p < .001$) and by less sibling closeness ($F[1,31] = 7.23$, $p < .05$).

In first grade, greater teacher-child relationship negativity was predicted by greater sibling closeness ($F[1,36] = 4.72$, $p < .05$) and, marginally, by "black sheep" status ($F[1,36] = 3.39$, $p < .10$). The regression equation for self-control in the classroom was also significant. More self-controlled children were less likely than their siblings to be identifiable as the "black sheep" of the family ($F[1,36] = 6.86$, $p < .05$), but were also somewhat less likely to be close to their siblings ($F[1,36] = 3.10$, $p < .10$).

In second grade, only classroom cooperation was significantly predicted by the combination of relationship variables. Insecure attachment ($F[1,16] = 4.48$, $p < .10$) was only marginally associated, and greater sibling closeness ($F[1,16] = 6.40$, $p < .05$) was significantly associated, with less cooperation in the classroom.

In summary, prediction from the three types of relationships at home were relatively independent of, and generally isolated from, one another. The most common scenario was

significant prediction from only one of the relationship variables, resulting in most regression equations lacking in overall significance. Controlling for mother-child attachment had little effect on the predictive importance of other relationships, and prediction tended not to be cumulative across relationships.

Protective factors. As a first test of the possible protective role of relationships at home, demographic risk--child race, child gender, or socioeconomic level--was entered first in a series of regressions, followed by either mother-child attachment risk, alternative caregiver-child relationship quality or sibling closeness/status, with the interaction term of risk X relationship quality entered last. In addition, the possible protective role of non-maternal relationships when mother-child attachment is insecure (Avoidant at 12 months and/or Coercive at 24 months) was tested by running regressions with mother-child attachment risk entered first, followed by alternative caregiver-child relationship quality or sibling closeness/status, with the interaction term of risk X non-maternal relationship quality entered last. To control for inflation of alpha, results are reported only for those school variables with a significant overall regression equation. Univariate F-tests for significant interaction effects in (significant) regressions are reported below.

In kindergarten, the possible protective role of mother-child (non-risk) attachment was suggested only in the case of dependency in the teacher-child relationship, and only in relation to child race ($F[1,64] = 4.91$, $p < .05$). Comparison of means among children with or without an A (Avoidant) attachment at 12 months indicated, however, that the effect was related to the disproportionately high dependency scores of the small group of non-white children who had an avoidant attachment. Risk status, in other words, was determined by the combination of minority race and avoidant attachment. No protective role was demonstrated.

Similarly, the possibility of a protective role for the alternative caregiver-child relationship in the case of the positive teacher-child relationship factor, emerged only in relation to SES ($F[1,36] = 8.30$, $p < .01$), and was not supported by comparison of means.

In this case, children with a less positive alternative caregiver-child relationship scored disproportionately low on the teacher-child positive factor when their mother was relatively higher in SES, but disproportionately high when SES was low. In effect, the presence of a more positive alternative caregiver-child relationship was not a buffer against any social risk stemming from the lowest SES levels in this generally low-income sample.

In contrast, problem-child status (in this case, of siblings) did appear to serve a protective role for the boys in the study. Both the negative teacher-child relationship factor ($F[1,57] = 6.38$ $p < .05$) and self-control in the kindergarten classroom ($F[1,57] = 7.53$, $p < .01$) were predicted by the interaction of "black sheep" status and child gender. Comparison of means indicated that boys with a sibling who was identifiable as a problem child (versus no problem child or the target boy as problem child) scored disproportionately low on the negative teacher relationship factor and disproportionately high on self-control. Differences for girls were less marked and, if anything, in the opposite direction.

In first grade, no risk X protective factor interaction effects were significant.

In second grade, the possibility of protective status of mother-child attachment for children of minority race was raised in several cases by significant interaction effects: the negative teacher-child relationship factor ($F[1,46] = 7.52$, $p < .01$) and both cooperation ($F[1,46] = 5.12$, $p < .05$) and self-control ($F[1,46] = 4.98$, $p < .05$) in the classroom. Comparison of means by race, however, indicated quite the opposite findings. White children with attachment risk at 12 and/or 24 months were rated as having a more negative relationship with their teacher and being less cooperative and self-controlled in the classroom than their counterparts without attachment risk. The opposite effect was seen among children of minority race, where attachment risk was, if anything, associated with a less negative relationship and more cooperation and self-control in the classroom. Mother-child attachment security was differentially associated with social outcomes, but not in the manner of a protective factor for racial minority status.

The only instance in which a true protective factor emerged in second grade was in the case of child gender and teacher-reported rejection by peers in second grade. The

interaction effect of gender and alternative caregiver relationship quality proved significant or near significant for rejection ($F[1,37] = 4.92$, $p < .05$), being liked ($F[1,37] = 3.87$, $p < .10$), and showing self-control in the classroom ($F[1,37] = 3.70$, $p < .10$). Boys with a more positive alternative caregiver-child relationship between ages 3 and 4 were less likely to be rejected than boys with a less positive caregiver-child relationship. Similar, but less powerful, patterns were present for peer liking and self-control. Girls showed no differences related to the quality of the alternative caregiver-child relationship.

In summary, the only consistent evidence for the role of relationships as protective factors against social or demographic risk, albeit using a conservative statistical approach, was for the boys in this study. Having a sibling who appeared to be a problem child in mother's eyes and having a more positive relationship with an alternative caregiver at preschool age predicted better social functioning in school for young boys only.

Broader support for the notion that relationships at home have special significance for boys in the early grades is also provided by correlational data, presented in Table 3. Mother-child attachment risk status in infancy, a more positive alternative caregiver-child relationship in the preschool period, and problem child status in the family consistently predicted the social functioning variables in school more powerfully for boys than for girls. The only exception was in correlations for sibling closeness. In this case, girls' subsequent social functioning was better predicted (an inverse association).

Differences also appeared in the strength of relationship prediction based on child race, another demographic risk factor. These data appear in Table 4. Despite comparable sample sizes in the earliest two grades, attachment risk significantly predicted dependency in the teacher-child relationship in kindergarten and first grades among non-white children exclusively, but poorer social relations in second grade only among white children. At preschool age, the presence of a problem child in the family (child versus sibling) was a good predictor of social relations in the early grades in school among children of minority race. And as noted earlier, the number of younger siblings in the home was a powerful

predictor of poorer social relations starting in first grade for children of minority race only. Thus, child gender and race do, in fact, qualify the strength of associations between relationships in the home and social relations at school.

Although the regressions testing protective effects uncovered very few of them, those testing attachment status as a risk factor were useful in confirming the independent nature of many of the associations between alternative caregiver-child relationship or sibling status/relations and social functioning in school. After controlling for differences in attachment status, both alternative caregiver and sibling relationship factors predicted social relations in school, primarily in kindergarten or second grade. Associations that remained significant or near significant even after controlling for mother-child attachment risk status are indicated in Table 1.

DISCUSSION

This investigation was unique in examining the predictive utility of relationship indicators from different relationships young urban, low-income children experience in day-to-day life at home for later social relations in school. Rather than focusing exclusively on the mother-child relationship, relations with an alternative caregiver (typically a grandparent, extended kin relation, or father figure) and with one or more siblings were considered as potential independent predictors of later social functioning in school. This approach proved useful since very limited associations existed among the indicators of these home-based relationships, yet each had some predictive contribution to make for later social relations in the classroom.

MOTHER-CHILD ATTACHMENT

Mother-child attachment "risk" for later social functioning was established in this sample to be avoidance at 12 months and coerciveness at 24 months, based on developmentally tailored assessments of attachment (Ainsworth et al., 1978 and Main & Solomon, 1990, criteria at 12 months; Crittenden, 1994, criteria at 24 months). Across the sample in general, attachment "risk" was informative about teacher-child relationship dependency and cooperation in the classroom across different grades. Since classroom

"cooperation" consisted of items primarily devoted to following rules and being self-directed in classroom activities, attachment risk from infancy predicted more about self-regulation and self-direction in the classroom than about social relationships, per se. This finding fits with the growing literature documenting associations (particularly among boys and children from disadvantaged families) between early mother-child attachment and maternal- or teacher-reported behavior problems (Fagot & Pears, 1996; Lyons-Ruth, Alpern, & Repacholi, 1993; Shaw et al., in press; Renken et al., 1989; see Greenberg, Speltz, & DeKlyen, 1993). Although one expects children with behavior problems (especially externalizing behavior problems) to be seen in a more negative light by their teachers, this does not preclude the existence of a close and caring relationship between the teachers who can handle such behavior and these students. Notably, attachment did not predict differences in how close and warm teachers reported their relationships with the study children to be. Yet the case can be made that teachers in the early school years do serve as attachment figures or surrogate parents, at least for some children. The fact that there was essentially no prediction to the positive teacher-child relationship factor suggests that--whether or not this is a secondary attachment relationship--early relationship history provides insufficient information to forecast whether a child will develop a close, confiding, and supportive relationship with a teacher. Sroufe and Fleeson (1988) argued that prediction from mother-child attachment classification to other specific relationships (e.g., teacher-child, classmate-child) should be weak at best, since relationships must take into account two different relationship histories and working models of attachment.

But attachment risk operated differently for children of different gender and race. For boys and non-white children (almost exclusively African-American) only, more insecurity of this sort predicted, especially, dependency in the kindergarten and first grade teacher-child relationships. Prediction to poorer second-grade social relations--a more negative teacher-child relationship and less cooperation in the classroom--was limited to white children. The reason for the loss of prediction among children of minority race does not appear to be a power problem--despite the small sample of second graders--since

correlations were not simply non-significant; they tended to be in the opposite direction. The small sample size does preclude generalization of this finding, however, and warrants replication in future research. More studies of relationship development need to include children of color.

The specificity of prediction by race and gender are consistent with prior studies of attachment that have tested for such differences in prediction, usually limited to consideration of gender differences in the relation to later behavior problems (Lewis et al., 1984; Renken et al., 1989; Turner, 1991; see Greenberg, Speltz, & DeKlyen, 1993), with some evidence that infant avoidance (Greenberg et al., 1993; but see Lyons-Ruth et al., 1993) and preschool coerciveness (using the PAA, Fagot & Pears, 1996) provide the most robust prediction. The presence or absence of associations across different studies may very well depend upon the gender and racial mix of the samples used (and the power of the sample size of insecure attachments to test them). Where prediction was found in the current study, it fit with both theory and research about social problems/issues related to insecure attachment. Sroufe (1983) reported, for example, that dependency on the teacher was among the key differences that distinguished preschoolers who were classified as insecure in infancy. This difference was replicated using kindergarten and first grade data, and recognizing that the prediction was carried by boys and African-American children from low-income families.

NON-MATERNAL RELATIONSHIPS

Data support the independent contributions made by non-maternal relationship data gathered between the child ages of 3 and 4 years; especially, how positive the alternative caregiver-child relationship was, whether the child or a sibling was identifiable in mother's eyes as a problem child, or "black sheep," in the family, and whether the child had a close relationship with his or her sibling(s), especially a younger sibling. Prediction from these other family relationships tended to remain significant, although often somewhat reduced in power, after controlling for mother-child attachment risk. This finding, in conjunction with the fact that attachment risk and measures of other social relations at home tended to be unrelated, affirms the importance of taking into account the multiple relationships in which

the child is embedded in daily family life to gain a fuller and more accurate picture of that child's social resources and developing model(s) of relationships (Cicchetti, Cummings, Greenberg, & Marvin, 1990; Dunn, 1993). Attachment theorists have not yet begun the work of clarifying whether and how multiple integrated or unintegrated models of attachment emerge, coexist, and/or influence relationships in different contexts, although these questions have certainly been raised (Bretherton, 1985, 1987) and distinctions between attachment and other types of relationships are emphasized (Ainsworth, 1989; Hinde, 1982).

Prediction from both the alternative caregiver-child relationship and sibling closeness tended to cluster in kindergarten. The temporal proximity of kindergarten may partly account for this, but since both relations also predicted teachers' global ratings of peer relations in second grade, it seems clear that the measures tap information about the child's ability to get along with others. Because kindergarten is the one grade most overtly devoted to relationship development and classroom socialization (as opposed to academics), it may be an ideal transition point--from a social relationship perspective--to examine social functioning differences among children. It is interesting that prediction to second grade peer relations was, in some cases, notable, whereas prediction to first- and second-grade social skills was notably absent. Apparently the global ratings of peer relations (not available in kindergarten or first grade)--being liked, rejected, and/or aggressive--shared more in common with earlier non-maternal relationship quality than did more specific clusters of social skills in the classroom. It is also interesting that these global peer ratings were predicted by non-maternal relationships assessed in the preschool period, rather than by mother-child attachment in infancy. This replicates a similar finding reported by Howes, Matheson, and Hamilton (1994), using a white, middle-class sample, in which relationships with day caregivers starting around age 2 predicted peer competence ratings and peer sociometrics at age 4, but neither infant-mother attachment nor concurrent child-mother attachment predicted peer measures. However, there are several studies that have linked infant-mother attachment to subsequent peer competence (e.g., LaFreniere & Sroufe, 1985; Waters, Wippman, & Sroufe, 1979), so work is needed to clarify when prediction can be expected.

It is worth mentioning that by second grade, prior sibling closeness (with an emphasis on closeness at preschool age to a younger sibling) predicted poorer relations with teacher and peers, for girls especially. This could reflect any number of different dynamics, at least one of which may involve negative repercussions among girls of asserting dominance and control among peers learned from early sibling relationships (Dunn & Kendrick, 1982). Ironically, among girls prior sibling closeness was one of the only predictors of having a warmer, closer (and less dependent) relationship to kindergarten teachers. The number of younger siblings was strongly associated with poorer classroom relations in second grade among children of minority race (but not girls in general), for whom it was also associated with lower maternal education and socioeconomic status (possible confounding variables). In fact, by first grade, it was one of the only strong (inverse) predictors of a positive teacher-child relationship, among non-white children only. Norman-Jackson (1982) found that the presence of younger siblings was associated with less language stimulation at home, poorer language development, and lower reading achievement for African-American children from disadvantaged families. In other words, early sibling closeness, with younger siblings especially, may be a two-edged sword when it comes to social relations at school for children from low-income families. It can be an advantage during the transition to school, when one is confronted with new relationships to establish and new group routines and dynamics to adapt to. But by second grade, it is a disadvantage for girls in their peer relations. Younger siblings in general are distinctly a disadvantage for low-income children of minority race, although the effect may be a reflection of more general family social and economic disadvantage.

Problem-child (or "black sheep") status was especially relevant for classroom relationships among children of minority race and boys. Few (10%) of the preschool-aged children in this sample were identifiable from their mothers' descriptions as "black sheep" in their families, but about a third (32%) had siblings who seemed to have a bad reputation in the family, according to mothers. In contrast to mother-child attachment, which acted more as a risk for later problems (when A at 12 months or C at 24 months), "black sheep" status

appeared to act more as a protective factor, with boys and non-white children benefitting from having a sibling (versus themselves) take on problem-child status in the family. These data offer intriguing preliminary support for the notion of "niche-picking" (Scarr, 1992; Scarr & McCartney, 1983) by siblings and, potentially, for sibling "deidentification" (Schachter, 1982), the notion that pairs of siblings (especially the first- and second-born) adopt or exaggerate characteristics that make them opposite from one another. Having a sibling in the status of less favored, may make children feel more "special" in the family (Radke-Yarrow & Sherman, 1990), see themselves as more favored by at least one parent (Dunn, Stocker, & Plomin, 1990; McHale & Pawletko, 1992), and/or behave in more socially desirable ways to maintain the status quo.

PROTECTIVE FACTORS

Somewhat surprisingly, no evidence emerged for the role of non-maternal relationships as specific protection for later social relations in school from those forms of mother-child attachment insecurity associated with poorer school relations. Rather, the quality of other home-based relationships, an alternative caregiver and one's siblings, seemed to predict later social functioning in school relatively independently of mother-child attachment history.

It was not the case that relationships with alternative caregivers, who in this study were most often extended family members, did not predict social relations in school. Among boys, having a close relationship with a caregiver other than mother predicted less peer rejection in second grade. Attachment risk, in contrast, had little or nothing to tell us about peer status in second grade for these children, although it told us about self-regulation and self-direction in the first and second grade classrooms. Similarly, attachment risk provided information about teacher-child dependency among children at higher risk due to race or gender during the transition to school, but problem child status (of siblings) told us about whether these children would behave better in kindergarten and create less friction with their kindergarten teacher. The information provided by mother-child relationships and by relationships with other caregivers and siblings was complementary more than compensatory.

Some important lessons were provided by the data from this investigation. On the one hand, gender and race qualify the strength of associations between relationships at home and social functioning at school, suggesting that risk and protection must be considered in social and cultural context. Socialization processes, both in the home and at school, often differ among families of upper and lower social class, among white families and families of color, and for girls versus boys. These differences no doubt explain, in part, why relationships forecast later functioning in different ways for children differing in gender and race. Research on the development of social relationships needs to embrace these differences and incorporate them in sampling plans, construct development, and measurement selection.

For all children, information about non-maternal relationships distinctly enriched and expanded prediction from early to middle childhood and from home to school. There is enormous potential for using information about multiple family relationships to gain a clearer picture of social development and socioemotional risk and resiliency. Results from this study are hardly conclusive, but they offer provocative questions about the mechanisms by which different relationships within the family individually and collectively contribute to a child's ability to create a warm relationship with his or her teachers and positive relations with peers. These relationships, in turn, may be critical in helping children successfully negotiate the transition to school and establish reputations that will help versus hinder their later school functioning.

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Table 1

Bivariate Predictive Associations From Home to School

3-4 Year Relationship Quality	5-8 Year Teacher Relationship	5-8 Year Social Functioning
Alternative Caregiver Relationship:		
Positive	K: Negative Factor[a] r(49) = -.44 **	K: Cooperation r(50) = .24 # Self-Control[a] r(50) = .39 **
	1: ------	1: ------
	2: ------	2: Being Liked[a] r(41) = .44 ** Rejected[a] r(41) = -.41 **
Negative	------	------
Dependent	------	------

#p < .10 *p < .05 **p < .01

[a]Associations remain significant after controlling for attachment risk

Table 1 (Continued)

Bivariate Predictive Associations From Home to School

3-4 Year Relationship Quality	5-8 Year Teacher Relationship	5-8 Year Social Functioning
Sibling Relations:		
Closeness	K: Dependent Factor[a] r(54) = -.36 **	K: Cooperation[a] r(54) = .29 *
	Negative Factor r(54) = -.28 *	Self-Control r(54) = .23 #
	1: Positive Factor r(64) = -.21 #	1: ------
	2: ------	2: Aggression[a] r(35) = .39 *
		Being Liked r(35) = -.29 #
Problem Child Status	K: Dependent Factor r(61) = .28 *	K: ------
	1: Negative Factor[a] r(86) = .23 *	1: Self-Control[a] r(85) = -.32 **
	2: ------	2: ------

$^{\#}p < .10$ $^{*}p < .05$ $^{**}p < .01$

[a]Associations remain significant after controlling for attachment risk.

Table 2

Demographic Risk and Children's Social Relations

Demographic Risk	3-4 Year Relationship Quality	5-8 Year Teacher Relationship	5-8 Year Social Functioning
Child Gender	Alternative Caregiver:	K: Positive factor	K: Cooperation
	------	t(60) = 3.39 **	t(70.9) = 2.98 **
		boys < girls	boys < girls
	Siblings:		Self-Control
	------		t(74) = 2.17 *
			boys < girls
			Assertiveness
			t(73.6) = 4.07***
			boys < girls
		1: Positive factor	1: Self-Control
		t(92) = 2.00 *	t(82.4) = 2.92 **
		boys < girls	boys < girls
		Negative factor	
		t(84.6) = 2.01 *	
		boys > girls	
		2: Negative factor	2: Cooperation
		t(54.7) = 2.50 *	t(55) = 3.09 **
		boys > girls	boys < girls
		Dependent factor	Self-Control
		t(50.5) = 2.03 *	t(53.5) = 2.63 *
		boys > girls	boys < girls

*p < .05 **p < .01 ***p < .001

Table 2

Demographic Risk and Children's Social Relations (continued)

Demographic Risk	3-4 Year Relationship Quality	5-8 Year Teacher Relationship	5-8 Year Social Functioning
Child Race	Alternative Caregiver:	K: ------	K: ------
	------	1: Negative factor	1: Cooperation
		t(70.9) = 2.25 *	t(89) = 3.48 ***
	Siblings:	white < non-whit	white > non-whit
	------	2: Negative factor	2: Self-Control
		t(55) = 2.50 *	t(55) = 2.66 *
		white < non-whit	white > non-whit
Maternal Socioeconomic Status	Alternative Caregiver:	K: ------	K: ------
	------	1: ------	1: ------
	Siblings:	2: Positive factor	2: Self-Control
	------	r(56) = .27 *	r(56) = .35 **
		Negative factor	Assertiveness
		r(56) = -.34 *	r(56) = .25 #
Maternal Education Level	Alternative Caregiver:	K: Negative factor	K: Assertiveness
	Negative factor	r(68) = .39 **	r(71) = -.31 **
	r(138) = -.21 *	1: Negative factor	1: ------
		r(92) = .25 *	
		2: Negative factor	2: ------
		r(57) = -.30 *	

*p < .05 **p < .01 ***p < .001

Table 3

Predictive Associations by Child Gender[a]

1-4 Year Relationship Quality	5-8 Year Teacher Relationship	5-8 Year Social Functioning
Mother-Child Attachment Risk	K: Dependent Factor r(36) = .46 ** *r(32) = .32 #* 1: Dependent Factor r(43) = .40 ** *r(44) = .17* 2: ------	K: ------ 1: ------ 2: ------
Alternative Caregiver Relationship:		
Positive	K: Negative Factor r(25) = -.46 * *r(24) = -.36 #* 1: ------ 2: ------	K: Self-Control r(25) = .43 * *r(25) = .29* 1: ------ 2: Being Liked r(22) = .68 *** *r(19) = .26* Rejection r(22) = .67 *** *r(19) = .24*

[a]Correlations for girls in italics

Table 3

Predictive Associations by Child Gender[a] (continued)

1-4 Year Relationship Quality	5-8 Year Teacher Relationship	5-8 Year Social Functioning
Sibling Relations:		
Closeness	K: Positive Factor	K: Cooperation
	r(27) = -.10	r(34) = .43 *
	*r(20) = .46 **	*r(20) = .21*
	Negative Factor	Self-Control
	r(34) = -.38 *	r(34) = .36 *
	r(20) = -.06	*r(20) = .08*
	Dependent Factor	
	r(34) = -.35 *	
	r(20) = -.42 #	
	1: ------	1: ------
	2: Negative Factor	2: Cooperation
	r(19) = -.03	r(19) = .18
	*r(16) = .62 **	*r(16) = -.54 **
		Self-Control
		r(19) = -.16
		*r(16) = -.50 **
		Aggression
		r(19) = .31
		*r(16) = .62 **

[a]Correlations for girls in italics

Table 3

Predictive Associations by Child Gender[a] (continued)

1-4 Year Relationship Quality	5-8 Year Teacher Relationship	5-8 Year Social Functioning
Sibling Relations:		
Problem Child Status	K: Negative Factor	K: Self-Control
	r(36) = .40 *	r(36) = -.46 **
	r(25) = .07	*r(25) = .18*
	1: Negative Factor	1: Self-Control
	r(48) = .30 *	r(47) = -.45 **
	r(38) = .16	*r(38) = -.20*
	2: ------	2: ------

[a]Correlations for girls in italics

Table 4

Predictive Associations by Child Race[a]

1-4 Year Relationship Quality	5-8 Year Teacher Relationship	5-8 Year Social Functioning
Mother-Child Attachment Risk	K: Dependent Factor r(38) = .21 *r(30) = .64* ***	K: ------
	1: Dependent Factor r(46) = .21 *r(40) = .41* **	1: ------
	2: Negative Factor r(35) = .50 **	2: Cooperation r(35) = -.58 ***
Alternative Caregiver Relationship:	*r(15) = -.34*	*r(15) = .15*
Positive	K: Negative Factor r(31) = -.44 * *r(18) = -.50* *	K: Self-Control r(32) = .39 * *r(18) = .45* #
	1: Negative Factor r(40) = -.33 * *r(25) = -.05*	1: Cooperation r(40) = .37 * *r(25) = -.08*
	2: ------	2: Being Liked r(31) = .35 # *r(10) = .71* * Rejection r(31) = -.39 * *r(10) = -.48*

[a]Correlations for children of minority race in italics

Table 4

Predictive Associations by Child Race[a] (continued)

1-4 Year Relationship Quality	5-8 Year Teacher Relationship	5-8 Year Social Functioning	
Sibling Relations:	K: Dependent Factor	K: Cooperation	
Closeness	r(27)= -.14	r(27)= .41 *	
	*r(27)= .55 **	*r(27)= .08*	
	1: ------	1: ------	
	2: ------	2: Aggression	
		r(21)= .33	
		r(14)= .55	
Problem Child Status	K: Dependent Factor	K: Cooperation	Self-Control
	r(32)= -.05	r(32)= .01	r(32)= .05
	*r(29)= .54 ***	*r(29)= .46 **	*r(29)= -.42**
	1: Negative Factor	1: Cooperation	Assertiveness
	r(46)= .22	r(45)= -.17	r(45)= -.08
	*r(39)= .43 ***	*r(39)= -.47 ***	*r(39)= -.35**
*		Self-Control	
		r(45)= -.19	
		r(39)= -.52 ***	
	2: Negative Factor	2: ------	
	r(38)= -.04		
	*r(16)= .52 **		

[a]Correlations for children of minority race in italics